

Title (en)
HEAT RESISTANT FIREPROOF MATERIAL AND VARIANTS

Title (de)
HITZEBESTÄNDIGES, FLAMMHEMMENDES MATERIAL UND VARIANTEN

Title (fr)
MATERIAU IGNIFUGE PROTEGEANT CONTRE LA CHALEUR ET VARIANTES

Publication
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Application
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Abstract (en)

[origin: EP1147719A2] The invention relates to multilayer protective materials used to sew clothes for firemen and rescue workers operating in areas of high temperature and open fire, and may be used in the manufacture of other articles, such as capes, covers, and blankets, which must show increased heat resistance for operation in areas of intense heat radiation and also open fire during fire suppression, including the suppression of burning sources of oil, gas and other substances. The essence of the invention is that in a heat-resistant fireproof material comprising a heat-resistant fiber substrate and a layer of moisture-resistant material with a metal coating layer applied thereon, according to the invention, the layer of moisture-resistant material is made of two layers, one of which comprises a sterically linked polymer having a liquid diffusion coefficient equal to or less than 10^{-9} cm²/sec, the other--a hermetic layer--is made of a rubber-based elastomeric material. In accordance with a variant of the invention, it comprises a porous material selected from the group consisting of polyolefins, fluorine-, chlorine- or silicon-containing polymers with a pore size of 0.01-1.0 μ m as the layer of moisture-resistant material, and aluminum, copper, titanium nitride with a layer thickness of 0.05-0.25 μ m as the metal coating layer. The technical result which is achieved when the invention is carried out is enhancement of the comfort of protective clothes made of the proposed material, which is due to the creation of conditions ensuring the removal of vapors of surplus moisture of the body directly through the heat-resistant material, enhancement of the fire resistant properties, which is due to an increase of the resistance to the action of open fire, preservation of the strength of the material within the period of heat action, an increase of the service life of the clothes, and also simplification of the structure of the material for sewing the clothes, enhancement of its operating properties and effectiveness of the protective action.

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Cited by
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